

## **ABSTRACT**

5       Compositions and methods for plasticizing polyvinyl chloride polymers  
      where the plasticizers contain fatty acids derived from vegetable oils and  
      the fatty acids are substantially fully esterified with an alcohol (monool or  
      polyol), the fatty acids having unsaturated bonds that are substantially  
      fully epoxidized, and wherein the fatty acids are added substantially  
10       randomly to one or more hydroxyl sites on the alcohol. The plasticizers  
      may be added in amounts between about 10 to 230 pph of PVC resin.